

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

1 IN RE: The application of Wendy and Michael Poss

2 **TITLE OF THE INVENTION**

3 Pet Bed having Orthopedic Properties

4 **CROSS REFERENCE TO RELATED APPLICATIONS**

5 Not Applicable

6 **STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH AND**  
7 **DEVELOPMENT**

8 Not Applicable

9 **BACKGROUND OF THE INVENTION**

10 1. Field of the invention

11 This invention relates to orthopedic pet beds and particularly to orthopedic pet  
12 beds having sculpted supports formed therein to provide maximum comfort for pets.

13 2. Description of the Prior Art

14 Pet beds are available on the market that run from simple stuffed pillows to more  
15 sophisticated "orthopedic" style beds. Although these so-called "orthopedic" pet beds  
16 exist in the market, none are designed using technologies that have been available to the  
17 human disability population. Most pet beds on the market use an egg "create" type  
18 foam, or a bag that is filled with poly-fill or cedar chips and call it "orthopedic", These  
19 materials are not moisture resistant, due to their open cell design or their ability to  
20 absorb and hold fluids, like cedar chips. Most pet beds lack proper support, especially  
21 for older dogs that may be suffering from joint diseases. In addition, most "orthopedic"

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

1 pet beds require the pet to "step up" in many cases as much as 8 inches or more to get  
2 into the bed. This causes the pet to strain its joints and muscles even more. Moreover,  
3 few pet bed products on the market today address that most pets feel more secure in a  
4 bed that wraps around them in the back.

5 Examples of pet beds range from large stuffed pillow type forms, to small,  
6 formed foam beds that are covered with cloth or other materials. Some specific designs  
7 are found in the following U. S. Patents: Patent No. 5,265,558 teaches a better method of  
8 making foam beds. The bed is formed in a mode and has a base with curved sidewalls  
9 and a section that forms an opening for entry and egress. The bed is designed to be  
10 covered with a fabric. Patent No, 6,553,935 teaches a dog bed that has a base made of  
11 plastic. It has a hinged top that has numerous perforations. A fan is placed in the base,  
12 as well as a heating or cooling element. Thus, the bed has a system for maintaining a  
13 desired temperature for the animal. Note however, that the bed has minimal structures  
14 for comfort, as it appears rigid. Two U. S. Design Patents show typical bed forms. In D  
15 295,904 to McMahan, a rectangular bed is shown that has a base and three rectangular  
16 sidewalls, forming a "U" shaped arm structure, similar to a couch. In D351, 687, also to  
17 McMahan, the bed has a lower body that has curved arms and a back as a one-piece  
18 structure and an inner rectangular pad.

### BRIEF DESCRIPTION OF THE INVENTION

19  
20 The instant invention overcomes all of these problems. It is a pet bed that, unlike  
21 prior art beds, is modeled after the anatomy of the canine shape. It uses a specially

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

1 designed comfort area in the top pad that aligns with the hip and shoulder areas to  
2 provide a supportive and conforming area to help improve blood flow to the hips and  
3 legs. This feature also reduces the "shearing" action on the skin and coat, while at the  
4 same time providing airflow under the pet to aid in their overall comfort.

5 The bed has a "step up" of less than 2 inches, which reduces joint strain on the  
6 pet as it enters the bed.

7 The base of the instant invention has a honeycomb support system molded into  
8 the base that aids in adjusting the overall pressure across the entire surface of the bed,  
9 making the bed truly form fitting.

10 The instant invention incorporates sculpted back and head / neck rest support  
11 areas. These areas are designed to allow the pet to choose a multiple of head / neck and  
12 paw placements to allow complete comfort with all of the therapeutic support benefits  
13 that the pet requires.

14 Unlike commonly used technologies like upholstery foam, cedar filled bags, or  
15 hospital type egg crate foam mattress materials that are not moisture resistant, the  
16 instant invention is molded from polyurethane medical grade closed cell foam that is  
17 resistant to absorbing moisture and body fluids. This allows for easy clean up  
18 following an accident.

19 Moreover, few pet bed products on the market today address that most pets feel  
20 more secure in a bed that wraps around them in the back. The instant invention uses a

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

1    contoured, multi-level back and sidewall structure that not only supports, but wraps  
2    around the animal, making it a favorite safe place to relax.

### BRIEF DESCRIPTION OF THE DRAWINGS

4        Figure 1 is a perspective view of the invention.

5        Figure 2 is a top plan view of the invention.

6        Figure 3 is a bottom plan view of the invention.

7        Figure 4 is a front elevational view of the invention.

8        Figure 5 is a back elevational view of the invention.

9        Figure 6 is a left side elevational view of the invention.

10       Figure 7 is a right side elevational view of the invention.

### DETAILED DESCRIPTION OF THE INVENTION

11       Referring now to fig. 1, 2, 4, 6 and 7, the pet bed 1 has a generally flat center base  
12       portion 2, an open front portion 3, a raised back portion 4 and two sculpted side  
13       portions 5 and 6. In the generally flat center base portion 2, there is formed a sculpted  
14       area 7. This area is a specially formed comfort zone what is designed to align with a  
15       pet's hip and shoulder areas to provide a supportive and conforming area to help  
16       improve blood flow to the hips and legs. These features also reduce the "shearing"  
17       action on the skin and coat, while at the same time providing airflow under the pet to  
18       aid in their overall comfort. As shown in the figures, this sculpted area 7 is shaped like  
19       a pair of dog bone type biscuits. Although this is done in part for appearance, the shape  
20       is ideal for the supporting nature of the zone, as discussed above. It is not enough to  
21

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

say that any other design can be used for the zone. Care must be used to provide the proper positioning of the support. The sculpted area 7 has a recessed perimeter groove 8 surrounding a center portion 9. Grooves 10 and 11 are also formed in the center portions 9 as shown. The grooves 10 and 11 improve airflow under the pet.

While it is possible for a small pet to fit within the generally flat center base portion 2, the bed has raised sides 5 and 6 and a raised back 4. These allow the animal to rest its neck and paws on these elements in any manner to achieve maximum comfort. The raised back 4 is level and straight as shown; the sides 5 and 6 are not. These elements are also sculpted to achieve maximum comfort. Note that as shown in figs. 6 and 7, the two sides 5 and 6 are mirror images of each other. Referring now to figs. 2, 4, 6 and 6, the sides 5 and 6 wrap around from the back 4 to the front of the bed. The sides end at the front, forming the open front portion 3 front portion 3 is shown in fig. 4.

The sides have compounded angles running from the front to the back. Figure 2 shows the forward part 20 of the sides 5 and 6 extends back at an angle  $\alpha$ . In the preferred embodiment, angle  $\alpha$  is 22 degrees with respect to the line of the front of the bed. However, angle  $\alpha$  can be between about 15 and 30 degrees. At the same time, this portion rises up at an angle  $\beta$  of approximately 45 degrees in the preferred embodiment (see fig. 6). However, angle  $\beta$  can be between about 30 and 55 degrees. As shown in fig. 2, the sides continue to curve around until they connect with the back 4. However, as the sides continue around to the back, they do not remain at the same level. In the

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

1 preferred embodiment, the sides level off for a short length **21**. After that, a curved  
2 recessed portion **22** is formed on each of the sides, as shown. After the curved recessed  
3 portion, the sides again flatten out in a flat portion **23**, and remain flat until they meet  
4 the flat back portion **4**. Figures 2, 4, 6, and 7 show that the curved portion **22** runs back  
5 at a second angle with respect to the forward part **20** of the arms. Note also that the flat  
6 portion **23** has a different angle than that of the curved portions **22**. The effect of these  
7 angles portions is to produce an overall curved shape from front to back, as shown in  
8 fig. 2.

9 Figure 3 shows the bottom of the bed. As shown, the base has molded perimeter  
10 supports **30** to help maintain the bed's shape. In the center of the base is a honeycomb  
11 support system **31** molded into the base. This honeycomb support system aids in  
12 adjusting the overall pressure across the entire surface of the flat portion of the bed,  
13 thereby making the bed truly form fitting for a particular animal. In the preferred  
14 embodiment, the honeycomb support system **31** has hexagonal sections **32** honeycomb  
15 support system, pentagonal sections **33** and four parallelogram shaped sections **34**. The  
16 placement of these sections is not done randomly. The placement is designed to  
17 produce the optimum weight distribution across the generally flat center base portion **2**.

18 The honeycomb support system **31** on the bottom surface also acts to create a  
19 dead air space, which helps insulate the pet from temperature differences if the bed is  
20 placed on a cold or hard surface.

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

1        In the preferred embodiment, the bed is molded of polyurethane closed cell foam  
2 or visco-elastic foam of in some combination of the two. The pet bed can also be given a  
3 coating of vinyl or other "spray-on" soft plastic coating to cover any or all of its surfaces  
4 to improve moisture and abrasion resistance, without significant loss of its orthopedic  
5 properties.

6        The present disclosure should not be construed in any limited sense other than  
7 that limited by the scope of the claims having regard to the teachings herein and the  
8 prior art being apparent with the preferred form of the invention disclosed herein and  
9 which reveals details of structure of a preferred form necessary for a better  
10 understanding of the invention and may be subject to change by skilled persons within  
11 the scope of the invention without departing from the concept thereof.